



U.S. Department of Transportation

National Highway Traffic Safety Administration

Dear Crash Data Researchers/Users:

Thank you for choosing crash data from the National Highway Traffic Safety Administration (NHTSA) for your research or other use. The information contained in this motor vehicle crash report is collected, maintained and distributed in accordance with Public Law 89-564. In accordance with this Public Law, NHTSA is required not to release any case information until completion of quality control procedures. These procedures include a review of the case material to extract all names, licenses and registration numbers, non-coded interview material, non-research related researcher comments in the margins, non-factual data, and the production number portion of the vehicle identification number (VIN).

If you requested NHTSA to query its database files in order to identify a specific crash, then that query was made using non-personal descriptors you provided for use in our search. This motor vehicle crash may have been identified from a data search and matches the general, non-personal descriptors you provided, but we cannot confirm that this is the specific crash report you requested.

If you have any questions with regard to the above procedures, please contact the Field Operations Branch, Crash Investigation Division, National Center for Statistics and Analysis at 202-366-4820. Again, please be advised that we cannot confirm that this is the case that you have specifically requested nor can we certify the information to be correct.

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DISCLAIMERS

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points are coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

Case Status Report

009

Case #

Veh. 1 driving on 4-lane undivided roadway overreacted **Accident Summary:** to vehicle entering traffic lane swerved to right and contacted a wooden utility pole. Airbag deployed causing driver 1 eyeglass frame to slice left eyeglobe. Case Vehicles: **V2** <u>V3</u> V1 1989 Year -Make -Accura Legend 4-dr Model -Damage -Moderate left front Subject Occupant: Vehicle # _ 1 Seat Pos _ 11 _ Age _ 72 Sex _ M _ Restraint Air Bag Only Major Injuries: Lacerated/Ruptured left eye globe Facial and chest abrasions Case Completion: Scene inspection X Scene diagram X Photos sorted/mounted X Interview X data forms coded X Vehicle(s) inspected X Crash run $\frac{n/a}{}$ Time line analysis $\frac{n/a}{}$ Technical analysis X Body contacts/injury table ___X Injury data (verbal) __X Injury data (written) X Financial data _____ Social data ____ Rehab data _____

TECHNICAL SUMMARY

CASE NUMBER 009-C

This is a single vehicle collision occurring at mid day on a suburban four 1990. The impact was with a roadside wooden utility pole on a suburban four lane roadway. The vehicle, a 1989 Acura Legend four door sedan was occupied by a 72 year old unrestrained male driver. The driver is a physician. A driver's side air bag is standard equipment on the Acura Legend.

The roadway is four lanes wide with a double yellow line separating NE from SW bound traffic. The coefficient of friction is .70 on the well maintained asphalt paved road surface. The road is straight, level and was dry at the time of the impact. The southern road edge is defined by a 3" high curb that is 4" wide at the top. The curbing is bordered by a 6" section of grass followed by the wooden utility pole's northernmost point. The utility pole is 9" in diameter.

The accident took place as V1 was NE bound in the curb lane. The elderly driver perceived a possible encroachment into his lane from a vehicle entering the roadway from a driveway at the north curb. V1 D's reaction to swerve the car to the right caused the right front tire to mount the south curb at a point 19' SW of the utility pole. At an estimated speed of 25-30 mph the extreme right front of the front bumper made initial impact with the utility pole. Direct damage width to the frontal plane was measured at 4" with a 12 o'clock direction of force. Following the displacement of the bumper cover the vehicle continued in a NE direction causing direct impact along the right front fender sheet metal in a sideswiping front to rear configuration accompanied by a minor amount of lateral crushing. The right front tire and wheel then were snagged by the utility pole driving the right front suspension 8" rearward into the front edge of the right front door skin. movement of the suspension caused a moderate amount of right front toe pan and side kick panel intrusion. The snagging action on the right front tire and wheel, imparted the majority of the impact force to V1 and triggered the airbag sensors deploying the airbag. Final rest for the right front tire was 14" east and 2' south of the south edge of the utility pole. Damage height on the contacted pole was measured to be 33".

The deployment of the airbag unquestionably cushioned the driver from severe and life threatening injury especially in view of his advanced years. The deceleration of the driver's body by the bag resulted in facial abrasions, orbital ecchymosis and chest wall contusions. Unfortunately, his eyeglasses became sandwiched between the deploying airbag and his face. Striation marks were noted on the plastic eyeglass lens from direct impact with the airbag. A section of the eyeglass frame or one of the earpiece fractured and pierced the left globe of the driver's eye rupturing the eyeball. The patient was transported to a hospital followed by transfer to an eye hospital for repair of the ruptured globe.

TECHNICAL SUMMARY

CASE NUMBER 009-C

Finally, the driver was taken to the trauma center when complications arose following the surgical procedures to the eye.

BODY CONTACTS AND INJURIES TABLE

CASE NUMBER 009-C

Vehicle #1 - 72 y/o unrestrained male driver

- 1989 Acura Legend 4 door coupe

- 12 o'clock right side-swiping type impact

- collision with 9" diameter wooden utility pole

- right front suspension driven 8" rearward

AIS CODES	<u>ICD-9</u>	<u>INJURIES</u>	BODY <u>CONTACTS</u>
FWAI 1	910.0	facial abrasions	deployed airbag
FLRO 2	871.2	left eye globe rupture	eyeglass frame via deployed airbag
CCCI 1	922.1	contusions over chest wall	deployed airbag
FLCO 1	921.0	left periorbital ecchymosis	deployed airbag

U.S. Department of Transportation National Highway Traffic Safety Administration OCCUPANT ASSESSMENT FORM CRA

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	11. Occupant's Posture (0) Normal posture
2. Case Number – Stratum	(1) Abnormal posture (specify):
0/	(9) Unknown
3. Vehicle Number	EJECTION/ENTRAPMENT
4. Occupant Number	12. Ejection
5. Occupant's Age Code actual age at time of accident. (00) Less than one year old (specify by month): (97) 97 years and older	(0) No ejection (1) Complete ejection (2) Partial ejection (3) Ejection, unknown degree (9) Unknown
(99) Unknown 6. Occupant's Sex (1) Male (2) Female (9) Unknown	13. Ejection Area (0) No ejection (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear (6) Rear
7. Occupant's Height Code actual height to the nearest inch. (99) Unknown 8. Occupant's Weight Code actual weight to the nearest pound. (999) Unknown	(7) Roof (8) Other area (e.g., back of pickup, etc.) (specify): (9) Unknown 14. Ejection Medium (0) No ejection
9. Occupant's Role (1) Driver (2) Passenger (9) Unknown 10. Occupant's Seat Position	 (1) Door/hatch/tailgate (2) Nonfixed roof structure (3) Fixed glazing (4) Nonfixed glazing (specify): (5) Integral structure
Front Seat (11) Left side (12) Middle (13) Right side (14) Other (specify): Second Seat (21) Left side (22) Middle (23) Right side (24) Other (specify): Third Seat	(8) Other medium (specify): (9) Unknown 15. Medium Status (Immediately Prior to Impact) (0) No ejection (1) Open (2) Closed (3) Integral structure (9) Unknown
(31) Left side (32) Middle (33) Right side (34) Other (specify): Fourth Seat (41) Left side (42) Middle (43) Right side (44) Other (specify): (97) In or on unenclosed area (98) Other seat (specify):	(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.) (0) Not entrapped (1) Entrapped (9) Unknown

26. Seat Type (This Occupant Position)	30. Child Safety Seat Orientation
(00) Occupant not seated or no seat (01) Bucket (02) Bucket with folding back (03) Bench (04) Bench with separate back cushions (05) Bench with folding back(s) (06) Split bench with separate back cushions (07) Split bench with folding back(s) (08) Pedestal (i.e., van type) (09) Other seat type (specify): (99) Unknown 27. Seat Performance (This Occupant Position) (0) Occupant not seated or no seat (1) No seat performance failure(s) (2) Seat adjusters failed (3) Seat back folding locks failed (4) Seat track/anchors failed (5) Deformed by impact of occupant (6) Deformed by passenger compartment intrusion (specify): (7) Combination of above (specify): (8) Other (specify):	Designed for Rear Facing for This Age/Weight (01) Rear facing (02) Forward facing (08) Other orientation (specify): (09) Unknown orientation Designed for Forward Facing for This Age/Weight (11) Rear facing (12) Forward facing (18) Other orientation (specify): (19) Unknown orientation Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight (21) Rear facing (22) Forward facing (28) Other orientation (specify): (29) Unknown orientation (99) Unknown if child safety seat used 31. Child Safety Seat Harness Usage 32. Child Safety Seat Tether Usage Note: Options below applicable to
CHILD SAFETY SEAT 28. Child Safety Seat Make/Model (000) No child safety seat Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual (997) Other make/model (specify): (998) Unknown make/model (999) Unknown if child safety seat used 29. Type of Child Safety Seat (0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat type (9) Unknown if child safety seat used	Variables OA31-OA33. (00) No child safety seat Not Designed with Harness/Shield/Tether (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added (09) Unknown if harness/shield/tether added or used Designed with Harness/Shield/Tether (11) Harness/shield/tether not used (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used Unknown If Designed with Harness/Shield/Tether (21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if child safety seat used

*** STOP HERE *** IF THERE ARE NO RECORDED INJURIES (I.E., OA43=00, 97, 99)



OCCUPANT ASSESSMENT LOG

Performance Assessment

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

US Department of Transportation

National Highway Traffic Safety

Administration

Performs

TO BE COMPLETED BY TEAM	12. Injury Information
	Official a. Autopsy (invasive examination) ————————————————————————————————————
1. PSU Number ————	b. Post-ER medical record which includes information
2. Case Number—Stratum	c. Admission record/summary of admission/
3. Researcher Completing Form	discharge face sheet
4. Vehicle Number	d. Discharge summary ————————————————————————————————————
5. Interviewer Number	f. History and physical examination and/or
6. Occupant Number	g. Emergency room records
7. Occupant's Role	h. Radiographic record(s) associated with ER visit
(1) Driver	i. Private physician ————
(2) Passenger	Unofficial
(3) Unknown	j. Lay coroner ————————————————————————————————————
8. Interviewee For This Occupant	I. Interviewee
(0) No interview	m. Other source (specify):
(1) Same person	n. Police report
Surrogate	(Blank) Not medically treated/record not required
(2) Other occupant	(01) No record of treatment at medical facility
(3) Relative or friend	(02) Medical release required—not obtained
(4) Combination of above categories (specify):	(03) Injury not related to accident
	(04) Noncooperative hospital (05) Hospital out of study area
	(06) Private physician would not release data
9. Manner Of Interview —	(07) Unknown if medically treated
(0) No attempt	(08) To be updated
(1) Telephone	(09) Record not received before file closeout (10) Record not obtained
(2) In-person	(11) Record obtained
(3) Questionnaire (4) Other (specify):	(12) Partial record obtained—not to be updated
(4) Other (specify):	(13) Partial record obtained—to be updated
10. Result Of Interview Attempt	13. Medical Facility Code
(01) Unable to contact or locate	
(02) Hit and run	TO BE COMPLETED BY ZONE CENTER
(03) Fatal—surrogate not available	
(04) In intensive care-surrogate not available	DATA STATUS OF VARIABLE NUMBERS 4-43
(05) Out-of-state resident	4 5 6 7 8 9 10 11 12 13 14
(06) Refused interview	
(07) Insurance company refusal	
(08) Attorney refusal or litigation (09) No return of questionnaire	15 16 17 18 19 20 21 22 23 24 25
(10) Other (specify):	15 16 17 18 19 20 21 22 23 24 25
(11) Return of completed questionnaire	
(12) Partial interview	26 27 28 29 30 31 32 33 34 35 36
(13) Complete interview	26 27 28 29 30 31 32 33 34 35 36
11. Injury Treatment Status —	
(0) No treatment	37 38 39 40 41 42 43
(1) Fatal—died before hospitalization	
(2) Fatal—died after hospitalization	
(3) Hospitalization	Data Status Codes:
(4) Emergency room treatment only	(Blank) Correct (4) Change—no error
(5) Treatment at physician's office	(1) Derived error (5) Sequencing error (2) Non-correctable error (8) MDE error
(6) Treatment at scene or self treatment (9) Unknown	(2) Non-correctable error (8) MDE error (3) Correctable error (9) Unknown coded
I ISO DOKOOWO	(0) 00110010010101 (0) 01101

National Highway Traffic Safety Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

0/

1. Primary Sampling Unit Number

2. Case Number - Stratum

009C

4. Occupant Number

3. Vehicle Number

0/

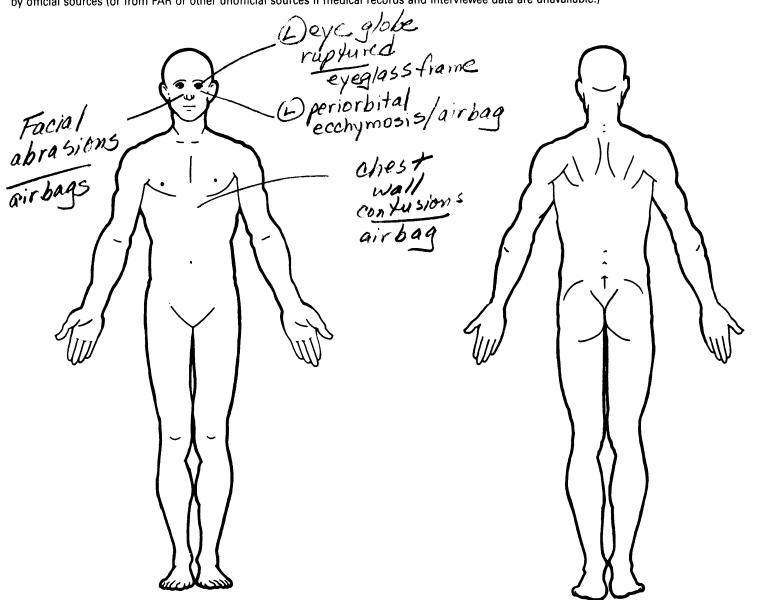
INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

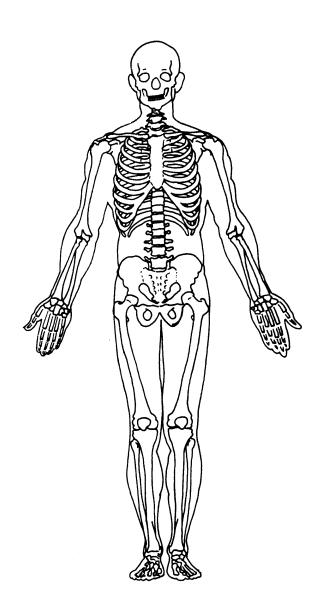
	0		0.1	.C.—A.I.S.				Injury Source	Direct/	
	Source of Injury Data	Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Confidence Level	Indirect Injury	Occupant Area Intrusion No.
1st	5. <u>-</u> 2	6.E	7.4	8. <u>R</u>	9. <i>0</i>	1 0	11.42	12. 🗸	13.人	14. <u>O</u> O
2nd	15. 🕰	16.E	17.12	18. <u>A</u>	19 - Ł	20. 🗸	21. 45	· 22. <u>/</u>	23	24.Q <i>Q</i>
3rd	25. 2	26. <u>C</u>	27. <u>C</u>	. _{28.} <u>C</u>	29.Z	-30. <u>/</u>	31. <u>45</u>	32	33	34. <u>00</u>
4th	35. <u>2</u>	36. F	· 37. <u></u>	28. <u>C</u>	39. <u>C</u>	40.4	41. <u>45</u>	42.[43. 🖊	44. <u>00</u>
5th	45	46	47	48	49	50	51	52	53	54
6th	55	56	57	58.	5 9	60	61	62. <u> </u>	63	64
7th	65	66	67	68	69	70	71	72. <u> </u>	73	74
8th	75	76	77	78	79	80	81	82	83	84
9th	85	86	87	88	89	90	91	92	93	94
10th	95	96	97	98	99	100	101	102	103	104

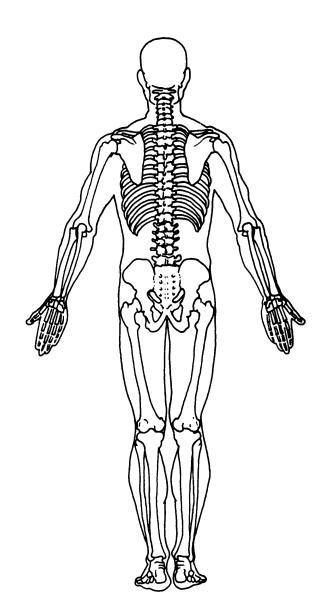
OFFICIAL INJURY DATA-SOFT TISSUE INJURIES

Indicate the Location, Lesion, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



Indicate the Location, Lesion, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)







INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

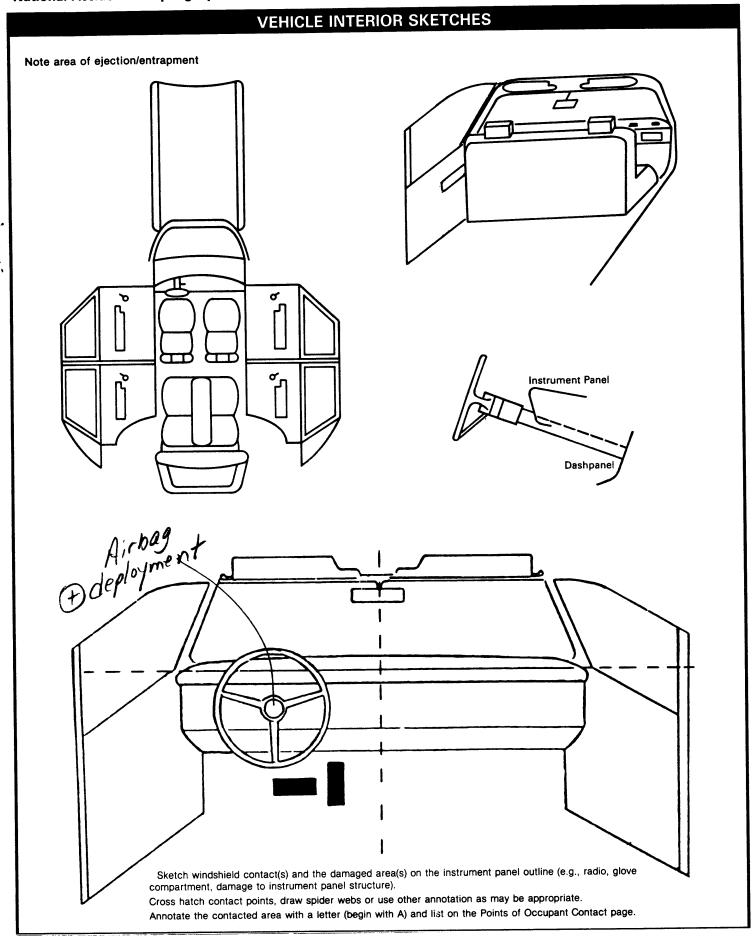
	GLAZING
1. Primary Sampling Unit Number 2. Case Number - Stratum	Glazing Damage from Impact Forces
2. Case Number – Stratum	15.WS Q 16. LF Q 17. RF Q 18. LR Q 19. RR
3. Vehicle Number	20. BL 21. Roof 22. Other
INTEGRITY	(0) No glazing damage from impact forces(2) Glazing in place and cracked from impact forces
4. Passenger Compartment Integrity 3 00	(3) Glazing in place and holed from impact forces
(00) No integrity loss	(4) Glazing out-of-place (cracked or not) and not holed from impact forces
Yes, Integrity Was Lost Through (01) Windshield (02) Door (side) (03) Door/hatch (rear)	 (5) Glazing out-of-place and holed from impact forces (6) Glazing disintegrated from impact forces (7) Glazing removed prior to accident (8) No glazing (9) Unknown if damaged
(04) Roof (05) Roof glass	Glazing Damage from Occupant Contact
(06) Side window (07) Rear window	23.WS 0 24. LF 0 25. RF 0 26. LR 0 27. RR 0
(08) Roof and roof glass (09) Windshield and door (side)	28. BL Q 29. Roof Q 30. Other C
(10) Windshield and roof (11) Side and rear window (12) Windshield and side window (13) Door and side window (98) Other combination of above (specify):	 (0) No occupant contact to glazing or no glazing (1) Glazing contacted by occupant but no glazing damage (2) Glazing in place and cracked by occupant contact (3) Glazing in place and holed by occupant contact (4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact (5) Glazing out-of-place by occupant contact
Door, Tailgate Or Hatch Opening 5. LF 6. RF 7. LR 8. RR 9. TG/H	and holed by occupant contact (6) Glazing disintegrated by occupant contact (9) Unknown if contacted by occupant
(0) No door/gate/hatch (1) Door/gate/hatch remained closed and operational	If No Glazing Damage <i>And</i> No Occupant Contact or No Glazing, Then Code IV 31 Through IV 46 As Ø
(2) Door/gate/hatch came open during collision (3) Door/gate/hatch jammed shut (8) Other (specify):	Type of Window/Windshield Glazing 31. WS 232. LF 233. RF 234. LR 35. RR
(9) Unknown	36. BL 2 37. Roof 2 38. Other 2
Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then Code Ø. 10. LF 2 11. RF2 12. LR 13. RR 2 14. TG/H 2	 (0) No glazing contact and no damage, or no glazing (1) AS-1 — Laminated (2) AS-2 — Tempered (3) AS-3 — Tempered-tinted (4) AS-14 — Glass/Plastic (8) Other (specify):
(0) No door/gate/hatch or door not opened	(9) Unknown
Door, Tailgate, or Hatch Came Open During Collision	Window Precrash Glazing Status
(1) Door operational (no damage) (2) Latch/striker failure due to damage	39.WS 240. LF 241. RF 242. LR 243. RR 2
(3) Hinge failure due to damage (4) Door structure failure due to damage	44. BL 2 45. Roof 2 46. Other 2
(5) Door support (i.e., pillar, sill, roof side rail,	#媒体화기하면 제 일본 (학원 현실 사용하실 하게 하시고 있을 때 사용하는 사용의 그리라 하시고 있다. 그는 사용이 되었다.
etc.) failure due to damage (6) Latch/striker and hinge failure due to	(0) No glazing contact and no damage, or no glazing(1) Fixed
damage (8) Other failure (specify):	(2) Closed (3) Partially opened (4) Fully opened
(9) Unknown	(9) Unknown

OCCUPANT	AREA	INTRUSION

Note: If no intrusions, leave variables IV 47-IV 86 blank.	INTRUDING COMPONENT
	Interior Components
Dominant	(01) Steering assembly
Location of Intruding Magnitude Crush	(02) Instrument panel left
Intrusion Component of Intrusion Direction	(03) Instrument panel center
,	(04) Instrument panel right
1st 47. 13 48. 0 4 49. 1 50. 2	(05) Toe pan
;	(06) A-pillar
	(07) B-pillar
2nd 51. $\frac{1}{3}$ 52. $\frac{0.5}{5}$ 53. $\frac{1}{5}$ 54. $\frac{2}{5}$	(08) C-pillar
EIIG 01 <u></u> 02 9 00 04	(09) D-pillar
	(10) Door panel
	(12) Roof (or convertible top)
3rd 55 56 57 58	(13) Roof side rail
	(14) Windshield
	(15) Windshield header
4th 59 60 61 62	(16) Window frame
Till 00 00 01 02	(17) Floor pan
	(18) Backlight header
	(19) Front seat back
5th 63 64 65 66	(20) Second seat back
	(21) Third seat back
!	(22) Fourth seat back
6th 67 60 00 TO	(23) Fifth seat back
6th 67 68 69 70	(24) Seat cushion
1.	(25) Back panel or door surface
!	(26) Other interior component (specify):
7th 71 72 73 74	
	(27) Side panel - forward of the A-pillar
1	(28) Side panel - rear of the A-pillar
045 77 70 77	Exterior Components
8th 75 76 77 78	(30) Hood
1	(30) Hood (31) Outside surface of vehicle (specify):
1	(5.) Catolas sariass of Formole (aposity).
9th 79 80 81 82	(20) Oak
	(32) Other exterior object in the environment
	(specify):
	(33) Unknown exterior object
10th 83 84 85 86	(97) Catastrophic
	(98) Intrusion of unlisted component(s)
LOCATION OF INTRUSION	(specify):
•	(specify):(99) Unknown
Front Seat Fourth Seat	(33) CHRIIOWII
(11) Left (41) Left	MAGNITUDE OF INTRUSION
(12) Middle (42) Middle	
(13) Right (43) Right	$(1) \ge 1$ inch but < 3 inches
	(2) ≥ 3 inches but < 6 inches
Second Seat (97) Catastrophic	$(3) \ge 6$ inches but < 12 inches
(21) Left (98) Other enclosed	(4) ≥ 12 inches but < 18 inches
(22) Middle area (specify):	(5) ≥ 18 inches but < 24 inches
(23) Right	(6) ≥ 24 inches
· /	(7) Catastrophic
Third Seat (99) Unknown	(9) Unknown
(31) Left	DOMINIANT CRIEN DIRECTION
(32) Middle	DOMINANT CRUSH DIRECTION
(33) Right	(1) Vertical
· , •	(2) Longitudinal
	(3) Lateral
	(7) Catastrophic

(9) Unknown

STEERING COLUMN	92. Steering Rim/Spoke Deformation
87. Steering Column Type (1) Fixed column (2) Tilt column (3) Telescoping column (4) Tilt and telescoping column (8) Other column type (specify):	Code actual measured deformation to the nearest inch. (0) No steering rim deformation (1-5) Actual measured value (6) 6 inches or more (8) Observed deformation cannot be measured (9) Unknown
(9) Unknown	93. Location of Steering Rim/Spoke Deformation
If PDOF ≠ 11, 12 or 1, Then Code IV88-IV91 As 96	(00) No steering rim deformation
88. Steering Column Collapse Due to Occupant Loading — Code actual measured movement to the nearest inch. See coding manual for measurement technique(s). (00) No movement, compression, or collapse (01-19) Actual measured value (20) 20 inches or greater Estimated movement from observation (81) Less than 1 inch (82) ≥ 1 inch but < 2 inches (83) ≥ 2 inches but < 4 inches (84) ≥ 4 inches but < 6 inches (85) ≥ 6 inches but < 8 inches (86) Greater than or equal to 8 inches (86) Greater than or equal to 8 inches (96) Not assessed (PDOF ≠ 11, 12, 1) (97) Apparent movement, value undetermined or cannot be measured or estimated (98) Nonspecified type column (99) Unknown	Quarter Sections (01) Section A (02) Section B (03) Section C (04) Section D Half Sections (05) Upper half of rim/spoke (06) Lower half of rim/spoke (07) Left half of rim/spoke (08) Right half of rim/spoke (09) Complete steering wheel collapse (10) Undetermined location (99) Unknown INSTRUMENT PANEL 94. Odometer Reading 18 36 miles — Code mileage to the nearest 1,000 miles (000) No odometer (001) Less than 1,500 miles
Direction And Magnitude of Steering Column Movement	(300) 299,500 miles or more (999) Unknown Source: Support on
89. Vertical Movement	95. Instrument Panel Damage from
90. Lateral Movement + 0 0	Occupant Contact? (0) No (1) Yes (9) Unknown
91. Longitudinal Movement + 00	
Code the actual measured movement to the nearest inch. See Coding Manual for measurement technique(s) (00) No steering column movement (±01-±49) Actual measured value (±50) 50 inches or greater	96. Knee Bolsters Deformed from Occupant Contact? (0) No (1) Yes (8) Not present (9) Unknown
Estimated movement from observation (±81) ≥ 1 inch but < 3 inches (±82) ≥ 3 inches but < 6 inches (±83) ≥ 6 inches but < 12 inches (±84) ≥ 12 inches (—96) Not assessed (PDOF ≠ 11, 12, 1) (—97) Apparent movement > 1 inch but cannot be measured or estimated (—99) Unknown	97. Did Glove Compartment Door Open During Collision(s)? (0) No (1) Yes (8) Not present (9) Unknown



		POINTS	S OF OCCUP	ANI CONTAC		
C	Interior Component Contacted	Occupant No. If Known	Body Region If Known		Physical Evidence	Confidence Level of Contact Point
Contact	 	/ /	Face Ches		n airbag—	,
A	airbagalp	(Face Cies		on eveglass	 /
B C				lens	GIT EYEYIES	
				(CIN		
D			 			
E			 			
F		•				
G						
<u>H</u>	 		<u> </u>			
<u> </u>			 			
J			-			
K						
L						
M						
N				R COMPONENTS		
(05) Steerin codes (07) Steerin selector (08) Add or deck, a (09) Left ins (10) Center (11) Right i (12) Glove (13) Knee b (14) Windsloof the pillar, i steerin (15) Windsl	or g wheel rim g wheel hub/spoke g wheel (combination of and 05) g column, transmiss or lever, other attach n equipment (e.g., Combination strument panel and instrument panel and compartment door	on of RIGH sion (30 ment B, tape (3: below (3: d below d below for more (3: der, A- irror,or side only) or more (3:	or roof side rail Other left side of SIDE Right side interexcluding hards Right side hard Right A pillar Right B pillar Other right pillar Right side wind	sill, A-pillar, B-pillar, beliect (specify): for surface, ware or armrests ware or armrest for (specify): low glass or frame low glass including the following: sill, A-pillar, B-pillar,	ROOF (50) Front header (51) Rear header (52) Roof left side ra (53) Roof right side (54) Roof or convert FLOOR (56) Floor including (57) Floor or console transmission left console (58) Parking brake h (59) Foot controls in brake	nil rail ible top toe pan e mounted ver, including andle
pillar, i (passe (16) Other (20) Left sin hardw (21) Left sin (22) Left A (23) Left B	instrument panel, or nger side only) front object (specify)	mirror): INTEI (4 (4 (4 excluding (4 rest (4 (4	50) Seat, back supp11) Belt restraint w22) Belt restraint B44454647474849494040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040404040<td>ebbing/buckle -pillar attachment system component system system ss (specify):</td><td>(60) Backlight (rear (61) Backlight storage (62) Other rear objective CONFIDENCE CONTACT (1) Certa (2) Probactive (3) Possi (4) Unkn</td><td>ge rack, door, etc. ct (specify): LEVEL OF POINT in able ble</td>	ebbing/buckle -pillar attachment system component system system ss (specify):	(60) Backlight (rear (61) Backlight storage (62) Other rear objective CONFIDENCE CONTACT (1) Certa (2) Probactive (3) Possi (4) Unkn	ge rack, door, etc. ct (specify): LEVEL OF POINT in able ble

(25) Left side window glass or frame

MANUAL RESTRAINTS

NOTES: Encode the applicable data **for each seat position** in the vehicle. The attributes for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
F	Availability	4		
R	Use	60		
R S T	Failure Modes	0		
SF	Availability			
Ö	Use			
одоошо	Failure Modes			
Ţ	Availability			
H	Use			
R D	Failure Modes			
O T	Availability			
H	Use			
H E R	Failure Modes			

Manual (Active) Belt System Availability	(08) Other belt used (specify):
(0) Not available(1) Belt removed/destroyed	(12) Shoulder belt used with child safety seat
(2) Shoulder belt (3) Lap belt	(13) Lap belt used with child safety seat(14) Lap and shoulder belt used with child safety seat
(4) Lap and shoulder belt	(15) Belt used with child safety seat — type unknown
(5) Belt available – type unknown(8) Other belt (specify):	(18) Other belt used with child safety seat (specify):
	(99) Unknown if belt used
(9) Unknown	an are at a part of the state o
Blancol (Active) Belt Custom Hoo	Manual (Active) Belt Failure Modes During Accident
Manual (Active) Belt System Use	(0) No manual belt used or not available
(00) None used, not available, or	(1) No manual belt failure(s)
belt removed/destroyed	(2) Torn webbing (stretched webbing not included)(3) Broken buckle or latchplate
(01) Inoperative (specify):	(4) Upper anchorage separated
	(5) Other anchorage separated (specify):
(02) Shoulder belt	
(03) Lap belt	(6) Broken retractor
(04) Lap and shoulder belt(05) Belt used — type unknown	(7) Combination of above (specify):
	(8) Other manual belt failure (specify):
	(9) Unknown

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encod	e the applicable	data for each	seat position	in the vehicle.	The attributes	for these varia	ables may
be for	nd at the botton	n of the page. I	Head restrain	t type/damage	and seat type	performance s	should be
asses	ed during the ve	ehicle inspection	on then code	d on the Occup	oant Assessme	nt Form.	

		Left	Center	Right
F	Head Restraint Type/Damage	. 3		
-RS	Seat Type	02		
S T	Seat Performance	/		
S	Head Restraint Type/Damage			
SECOZ	Seat Type	·		
Ň D	Seat Performance			
Ţ	Head Restraint Type/Damage			
H	Seat Type			
R D	Seat Performance			
Q	Head Restraint Type/Damage			
H	Seat Type			
E R	Seat Performance			

Head	Restraint	Type/Damage	by	Occupant	at	This
Occu	pant Posi	tion				

(0)	No head	restraints
-----	---------	------------

- (1) Integral no damage
- (2) Integral damaged during accident
- (3) Adjustable no damage
- (4) Adjustable damaged during accident
- (5) Add-on no damage
- (6) Add-on damaged during accident
- (8) Other (specify): ___
- (9) Unknown

Seat Type (This Occupant Position)

- (00) No seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., van type)
- (09) Other seat type (specify): ___
- (99) Unknown

Seat Performance (This Occupant Position)

- (0) No seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks failed
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify):

7)	Combination	of	above	(specify):

- (8) Other (specify):
- (9) Unknown

DESCRIBE	ANY INDICA	TION OF ABI	NORMAL O	CCUPANT P	OSTURE (I.E.	UNUSUAL U	CCUPANI
CONTACT	PATTERN)						
00.11701							

n the vehicle. Code the appropriate	ner has any indications that an occupant was either ejected from odata on the Occupant Assessment Form. body parts involved in partial ejection(s):	or entrapped
Occupant Number		
Ejection (Note on Vehicle Interior Sketch) Ejection Area		
Ejection Medium		
Medium Status		
Ejection (1) Complete ejection (2) Partial ejection (3) Ejection, unknown degree (9) Unknown Ejection Area (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear (6) Rear	(7) Roof (8) Other area (e.g., back of pickup, etc.) (specify): (9) Unknown Ejection Medium (1) Door/hatch/tailgate (2) Nonfixed roof structure (3) Fixed glazing (4) Nonfixed glazing (specify): (5) Integral structure (8) Other medium (specify): (9) Unknown Medium Status (Immeto Impact) (1) Open (2) Closed (3) Integral structure (9) Unknown	specify):ediately Prio
ENTRAPMENT No Yes [Describe entrapment mechanism: _		
Component(s):		



Insp 4/

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

U.S. Department of Transportation

National Highway Traffic Safety Administration

Administration											
	Sampling Unit Num		09E	3. Ve	hicle N	umber				0	<u>/</u>
2. Case Nur	mber – Stratum		EHICLE ID	I ENTI	FICATI	ON					
	HUKAU					3-			198	- Í	
VIN —	HHKA4		1 9	<u>ı</u>		_	Model	Year	1000	1400	
Vehicle Mak	e (specify): Accu	i va				e Model	(specif	fy): _ _	e ge	RU	
				CATO						- for on	d
Locate the impacts or	end of the damage v an undamaged axle	with respect for side im	to the vehice pacts.	cie ion	gituaina	ai cente	r line o	r bumpe	er come		u
Specific Impact No.	Location of Dire			cation	of Fie	ld L	L	ocation	of Max	kimum (Crush
	Rt Front (orner	F	111	From	17			25		
			CRUSI	1 PRC	FILE						
Me im Fre the sic	l, etc.) and label adjusted and label adjusted as to C6 from pacts. The space value is deserted and control and co	fined as the ons. This ma the value fo	distance be ay include the or each C-mo cessary to d	de in f etween ne folk easure	the bas owing: I ment a	seline ai bumper nd maxi	nd the d lead, b imum c	nd rear original umper t rush.	to front	in side ontour t	aken at
Specific Impact Number	Plane of C-Measurements	Direct D Width (CDC)	amage Max Crush	Field L	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	±D
/	- Bun per	8		62	4.4	1.2	0	,5	2.3	7.3	£28.
	Free Space				60	2.0	,5	, 5	2.0	1.3	
	Ktol Gush				0	0		0	 ``	7.0	
									<u> </u>		
1											
									<u> </u>		
			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \							-	
ı		1	ı i		1	I	I	l	L	L	L

	VEHICLE DAMAGE SKETCH	
TIRE – WHEEL DAMAGE a. Rotation physically b. Tire restricted deflated RF RF LF LF RR RR (1) Yes (2) No (8) NA (9) Unk. TYPE OF TRANSMISSION Manual Automatic	ORIGINAL SPECIFICATIONS Wheelbase Overall Length Maximum Width Curb Weight Average Track Front Overhang Rear Overhang Engine Size: cyl./ displ. Undeformed End Width	displaced rear axles only) RF
	Original Bumper height	
	Bumper corner 186 " POST-CRASH Stringline " 190.6 151	Bumper corner
NOTES: Sketch new perimeter and cross hatch in reconstruction the accident (e.g.	Bumper corner	Bumper corner "Stringline 7 Annotate observations which might be useful

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

damage received on the back of this page.

CD		W	\cap	В	2			ī
UU	U	V.	U		7.5		3	J

CODES FOR OBJECT CONTACTED

01-30 —	Vehicle	Number
---------	---------	--------

Noncollision

- (31) Overturn rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify):
- (35) Noncollision injury
- (38) Other noncollision (specify):
- (39) Noncollision details unknown

Collision with Fixed Object

- (41) Tree (≤4 inches in diameter)
- (42) Tree (>4 inches in diameter)
- (43) Shrubbery or bush
- (44) Embankment
- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤4 inches in diameter)
- (51) Pole or post (>4 but ≤12 inches in diameter)
- (52) Pole or post (>12 inches in diameter)
- (53) Pole or post (diameter unknown)
- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (specify):

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or Culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify):

(69) Unknown fixed object

Collision With Nonfixed Object

- (71) Motor vehicle not in transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance (specify):
- (75) Vehicle occupant
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (88) Other nonfixed object (specify):
- (89) Unknown nonfixed object
- (98) Other event (specify):
- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
01	5/	005	00	F	K	E	E	03
								
								
				<u></u>				

COLLISION DEFORMATION CLASSIFICATION							
Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force 6. 12	(3) Deformation Location 7.	(4) Specific Longitudinal or Lateral Location 8.	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent 11.
Second Hig	Second Highest Delta "V"						
12	13	14	. 15	16	17	18	19
			CRUS	SH PROFILE			
(The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. ALL MEASUREMENTS ARE IN INCHES.)							
HIGHEST	DELTA "V"						
20. L	21. 	<u>C</u> :	<u>C3</u>	<u>C4</u>	C5	C6	22. + - D
<u>062</u>	ک ۵۵		<u> </u>	00	<u> </u>	<u></u>	<u> </u>
Second F	Second Highest Delta "V"						
23. L	24. 		2 <u>C3</u>	C4	C5	C6	25. + - D + -
but Not Coded on The Automated File (0) No (1) Yes			7. Researcher's Assessment of Vehicle Disposition (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown		/ / <u>07</u> .	28. Original Wheelbase 107.6 /OT.6 Code to the nearest tenth of an inch (9999) Unknown	
	*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED *** (I.E., $GV09 = 0$ OR 9), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.						

US Department of Transportation
National Highway Traffic Safety
Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM CRASHWORTHINESS DATA SYSTEM

Official Section 1	
1. Primary Sampling Unit Number 2. Case Number – Stratum	11. Police Reported Alcohol or Drug Presence (0) Neither alcohol nor drugs present (1) Yes (alcohol present) (2) Yes (drugs present)
3. Vehicle Number	(3) Yes (alcohol and drugs present)
	(4) Yes (alcohol or drugs present – specifics
VEHICLE IDENTIFICATION 4. Vehicle Model Year Code the last two digits of the model year (99) Unknown 5. Vehicle Make (specify):	unknown) (7) Not reported (8) No driver present (9) Unknown 12. Alcohol Test Result for Driver Code actual value (decimal implied before first digit – 0.xx)
Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual. (99) Unknown 6. Vehicle Model (specify): 032	(95) Test refused (96) None given (97) AC test performed, results unknown (98) No driver present (99) Unknown
Applicable codes are found in your	ACCIDENT RELATED
NASS CDS Data Collection, Coding, and Editing Manual.	ACCIDENT RELATED 13. Speed Limit
(999) Unknown	(00) No statutory limit
7. Body Type Note: Applicable codes are found on	Code posted or statutory speed limit (99) Unknown
the back of this page.	14. Attempted Avoidance Maneuver
8. Vehicle Identification Number HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	(00) No impact (01) No avoidance actions (02) Braking (no lockup) (03) Braking (lockup) (04) Braking (lockup unknown) (05) Releasing brakes (06) Steering left (07) Steering right (08) Braking and steering left
OFFICIAL RECORDS	(09) Braking and steering right
9. Police Reported Vehicle Disposition (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown	 (10) Accelerating (11) Accelerating and steering left (12) Accelerating and steering right (97) No driver present (98) Other action (specify):
10. Police Reported Travel Speed	(99) Unknown
Code to the nearest mph (NOTE: 00 means less than 0.5 mph) (97) 96.5 mph and above (99) Unknown	15. Accident Type Applicable codes may be found on the back of page two of this field form (00) No impact Code the number of the diagram that best describes the accident circumstance (98) Other accident type (specify):
	(55) OTIKHOWIT

**** STOP HERE IF GV07 DOES NOT EQUAL 01-49 ****

OCCUPANT RELATED	D		
16. Driver Presence in Vehicle (0) Driver not present (1) Driver present (9) Unknown	24. Rollover (0) No rollover (no overturning) Rollover (primarily about the longitudinal axis) (1) Rollover, 1 quarter turn only		
17. Number of Occupants This Vehicle (00-96) Code actual number of occupants for this vehicle (97) 97 or more	 (2) Rollover, 2 quarter turns (3) Rollover, 3 quarter turns (4) Rollover, 4 or more quarter turns (specify): 		
(99) Unknown 18. Number of Occupant Forms Submitted	(5) Rollover – end-over-end (i.e., primarily about the lateral axis)(9) Rollovér (overturn), details unknown		
VEHICLE WEIGHT ITEMS	OVERRIDE/UNDERRIDE (THIS VEHICLE)		
19. Vehicle Curb Weight $\underline{\underline{6}}$ $\underline{\underline{3}}$, $\underline{\underline{2}}$ 0 0	25. Front Override/Underride (this vehicle)		
100 pounds. (010) Less than 1050 pounds	26. Rear Override/Underride (this vehicle)		
(135) 13,500 lbs or more (999) Unknown	(0) No override/underride, or not an end-to-end impact		
20. Vehicle Cargo Weight ——Code weight to nearest 100 pounds. (00) Less than 50 pounds (97) 9,650 lbs or more	Override (see specific CDC) (1) 1st CDC (2) 2nd CDC (3) Other not automated CDC (specify):		
(99) Unknown	Underride (see specific CDC) (4) 1st CDC		
RECONSTRUCTION DATA	(5) 2nd CDC (6) Other not automated CDC (specify):		
21. Towed Trailing Unit (0) No towed unit (1) Yes – towed trailing unit (9) Unknown	(7) Medium/heavy truck override (9) Unknown		
22. Documentation of Trajectory Data for This Vehicle (0) No	HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V		
(1) Yes 23. Post Collision Condition of Tree or Pole (for Highest Delta V) (0) Not collision (for highest delta V) with tree or pole (1) Not damaged (2) Cracked/sheared (3) Tilted 45 degrees (4) Tilted ≥45 degrees	Values: (000)-(359) Code actual value (997) Noncollision (998) Impact with object (999) Unknown 27. Heading Angle for This Vehicle 28. Heading Angle for Other Vehicle		
 (5) Uprooted tree (6) Separated pole from base (7) Pole replaced (8) Other (specify): (9) Unknown 			

29. Basis for Tot	tal Delta V (Highest)	6	Secondary Highest
(2) CRASH proutine (3) Missing v Delta V Not (4) At least of is beyond tion prog (5) All vehicle CRASH productions is gram or niques, r (6) All vehicle	rogram—damage only routine rogram—damage and trajectory vehicle algorithm	struc- itions. ole) of n con- H pro- tech- e data. within	32. Lateral Component of Delta V = 499 —Nearest mph (NOTE:00 means greater than 0.5 and less than +0.5 mph) (±97) ±96.5 mph and above (99) Unknown 33. Energy Absorption
programs	, but there is insufficient data availab	ole.	Results (for Highest Delta V) (0) No reconstruction
30. Total Delta N ——— Near (NOTE: 00 n 0.5 mph)	vest mph reans less than the and above	ighest	(1) Collision fits model—results appear reasonable (2) Collision fits model—results appear high (3) Collision fits model—results appear low (4) Borderline reconstruction—results appear reasonable 35. Type of Vehicle Inspection (0) No Inspection (1) Complete inspection (2) Partial inspection (specify):
Delta V Near (NOTE:00 _ 0.5 and le	rest mph means greater than ses than + 0.5 mph) 5 mph and above nown	79	36. Is this an AOPS Vehicle? (0) No (1) Yes
*** STC	DP: IF THE CDS APPLICABLE	VEHIC	LE WAS NOT INSPECTED (I.E., GV35 = 0), ***





U.S. Department of Transportation

National Highway Traffic Safety Administration

HS Form 431B (1/90)

ACCIDENT COLLISION DIAGRAM

PSU No. -Case Number – Stratum O O 9 E Indicate North Level-Bitumacus Surface Tire mark on cub 19'5-of 5 edge of PE Pole RF-FR-14"E-42'5 of Pole 5 5.000 10









































































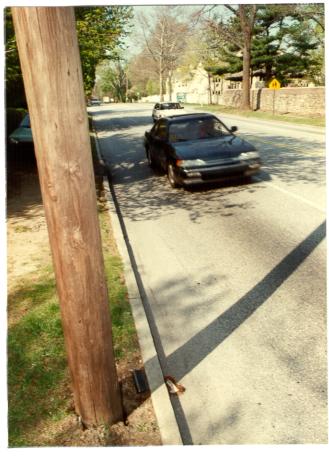






















Availab





































































